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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,570	04/20/2004	Hung-ying Tyan	073338.0200 (04-51121 FLA	5277
5073	7590	04/04/2008	EXAMINER	
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			WANG, QUAN ZHEN	
			ART UNIT	PAPER NUMBER
			2613	
			NOTIFICATION DATE	DELIVERY MODE
			04/04/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/828,570

Applicant(s)

TYAN ET AL.

Examiner

QUAN-ZHEN WANG

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-15, 17-23, 25-31 and 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-15, 17-23, 25-31 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-2, 4-7, 9-10, 12-15, 17-18, 20-23, 25-26, 28-31, and 33 are rejected under 35 U.S.C. 102(a) as being anticipated by Chang et al. (U.S. Patent Application Publication US 2003/0117678 A1).

Regarding claims 1, 9, 17, 25, and 33, Chang discloses a system (figs. 1-5, 36A-36B) for managing network traffic, comprising: an internet protocol network (fig. 1, network 110; fig. 36A: network formed by the IP routers) for communicating traffic, the IP network comprising a plurality of nodes coupled by IP links (fig. 1, node 111 and 112; fig. 36A, the link between the IP nodes (routers)); a wavelength division multiplex (WDM) topology coupled to the IP network (fig. 1, network 120), the WDM topology comprising a plurality of lightpaths (fig. 1, the paths connecting node 1-node5) operable to communicate optical traffic; and a controller (figs. 2-3, NC&M) operable to: provision the IP network for communicating traffic; monitor the IP network for a congestion event; upon detecting a congestion event, select a label switched path (LSP) of the IP network for reroute (paragraph 0113); compute a hybrid path route for the selected LSP between a first node and a second node of the plurality of nodes, the hybrid path route comprising at least one IP link (fig. 36A, the IP link between the IP nodes (routers) and

at least one lightpath of the WDM topology (fig. 36A, the WDM links with in 3625); determine whether performance of the hybrid path route for the selected LSP reduces costs (for example, paragraph 0105); and if the hybrid path route reduces costs: activate a new IP link on each of the at least one lightpaths of the plurality of lightpaths of the WDM topology; and reroute the selected LSP according to the hybrid path route (for example, paragraphs 0101-0109).

Regarding claims 2, 10, 18, and 26, Chang further discloses that the controller is further operable to decommission an idle IP link after rerouting the selected LSP (for example, paragraph 0113).

Regarding claims 4, 12, 20, and 28, Chang further discloses that the controller operable to account for a cost associated with each IP link and each lightpath of the hybrid path route (for example, paragraph 0105).

Regarding claims 5, 13, 21, and 29, Chang further discloses that a controller operable to activate a new IP link on each of the at least one lightpaths of the plurality of lightpaths of the WDM topology comprises a controller operable to: allocate an unused router port on each end of each of the at least one lightpaths; and activate the allocated router ports with respective established lightpaths (for example, paragraphs 0105 and 0113).

Regarding claims 6, 14, 22, and 30, Chang further discloses that the IP network comprises an IP router (fig. 1, IP router 111).

Regarding claims 7, 15, 23, and 31, Chang further discloses that the WDM topology couples optical cross-connection of the WDM topology (fig. 1, optical network 120).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 11, 19, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (U.S. Patent Application Publication US 2003/0117678 A1) in view of Pieda et al. (U.S. Patent US 6,882,627 B2).

Regarding claims 3, 11, 19, and 27, Chang differs from the claimed invention in that Chang does not specifically disclose using a transformed topology to calculate the hybrid path. However, using a transformed topology to calculate a path in a communication network is well known in the art. For example, Pieda discloses to calculate a path using a transformed topology (fig. 3C). Therefore, it would have been obvious for one of ordinary skill in the art at the time when the invention was made to incorporate the method of Pieda in the system of Chang to calculate a path using a transformed topology. One of ordinary skill in the art would have been motivated to do so in order to identify the best non-primary path through the network.

Response to Arguments

5. Applicant's arguments filed on February 19, 2008 have been fully considered but they are not persuasive.

Regarding the 102 rejections

6. Regarding claim 1, Applicant argues, "Chang does not disclose computing a hybrid path route." Examiner respectfully disagrees. **According to the instant specification, "IP link" refers to the logical connection between nodes using Internet Protocol; and "The hybrid path route comprises at least one lightpath of a wavelength division multiplex (WDM) topology coupled to the IP network" (see abstract).** Chang clearly and specifically illustrated the figures that the nodes are IP nodes (IP routers) and therefore the links between the IP nodes are IP links (see for example, figs. 1 and 36A). Chang also explicitly discloses that a path route comprising "at least one lightpath of a WDM topology coupled to the IP network (figs. 1, 31, 33, and 36A). In addition, as it is clearly and explicitly illustrated in the drawings (for example, figs. 36A and 36B), Chang's network comprises a route comprising at least one IP link and at least one lightpath of a wavelength division multiplex (WDM) topology coupled to the IP network. Consequently, Chang's route clearly and undoubtedly reads the claimed "hybrid path route" and the route computing of Chang read the claimed "computing a hybrid path route". Therefore, the rejections of claim 1 and its dependent claims still stand. For the same reasons, the rejections of claims 9, 17, 25, and 33 and all claims depending therefrom still stand.

Regarding claim 2, Applicant argues, "Chang does not disclose decommissioning and idle IP link". Examiner respectfully disagrees. In accordance with MPEP, "The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983)" See MPEP §2112. For the instant case, Chang clearly and explicitly discloses that "the routing protocol performs the following functions: (a) measures network parameters, such as state of communication lines, estimated traffic, delays, capacity utilization, pertinent to the routing strategy; (b) forwards the measured information to NC&M 220 for routing computations; (c) computes of the routing tables at NC&M 220; (d) disseminates the routing tables to each network element 121-125 to have packet routing decisions at each network element. NC&M 220 receives the network parameter information from each network element, and updates the routing tables periodically, then (e) forwards a connection request from an IP router such as element 111 to NC&M 220, and (f) forwards routing information from the NC&M 220 to each network element 121-125 to be inputted in optical signaling header 210." Therefore, the controller obviously decommissions an idle IP link when it performs the computation of the routing tables. Applicant further argues, "A routing table simply matches a destination address with the network path to be used to reach the destination. Thus creating a routing table

does not decommission an idle IP link". Examiner respectfully disagrees. Firstly, the routing table of Chang is not simply matching a destination address with the network path to be used to reach the destination. In accordance to Chang, the routing table provides information of both available routing paths and the path used to reach destination. Secondly, the available paths that are not currently used reads on the claimed "idle link". Therefore, the rejection of claim 2 still stands. For analogous reasons, the rejection of claims 10, 18, and 26 still stand.

Regarding claim 4, Applicant argues that, "Chang does not disclose determining whether performance of the hybrid path route for the selected LSP reduces costs for a cost associated with each IP link and each lightpath of the hybrid route". Examiner respectfully disagrees with Applicant. In accordance with MPEP, "The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. "The inherent teaching of a prior art reference, a question of fact, arises both in the context of anticipation and obviousness." In re Napier, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995) (affirmed a 35 U.S.C. 103 rejection based in part on inherent disclosure in one of the references). See also In re Grasselli, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed. Cir. 1983)" See MPEP §2112. For the instant case, Chang explicitly discloses that "each destination is associated with a preferred path which would minimize the cost", and the cost "is computed based on the total propagation distance, the number of hops, and the traffic load" (paragraph 0105). It is clear that the reduction of the costs in Chang read the claimed limitation of reducing costs comprises "accounting for a cost associated with

each IP link and each lightpath of the hybrid path route". Furthermore, because Chang discloses hybrid paths in the network, the reduction of the costs of Chang reads on the claimed limitation of "determining whether performance of the hybrid path route for the selected LSP reduces costs comprises accounting for a cost associated with each IP link and each lightpath of the hybrid path route". Therefore, the rejection of claim 4 still stands. For analogous reasons, the rejection of claims 12, 20, and 28 still stand.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liu (U.S. Patent Application Publication US 2003/0179716 A1) discloses a virtual IP network over reconfigurable WDM network. Kano et al. (U.S.

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Patent Application Publication US 2003/0043745 A1) disclose a path modifying, label switching node and administrative node in label transfer network.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan-Zhen Wang whose telephone number is (571) 272-3114. The examiner can normally be reached on 9:00 AM - 5:00 PM, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/qzw/
3/30/2008

/Jason Chan/
Supervisory Patent Examiner, Art Unit 2613